

THAT WHICH IS CLAIMED:

1. An adhesive, comprising:
polyethylene;
a copolymer derived from ethylene and at least one monomer selected from
5 the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate;
and
a resin derived from at least one unsaturated C5 hydrocarbon monomer.
2. The adhesive according to Claim 1, further comprising a hindered
10 phenolic antioxidant.
3. The adhesive according to Claim 1, wherein the resin is a C5
hydrocarbon resin derived from at least one monomer selected from the group consisting
of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and dimers
15 thereof.
4. The adhesive according to Claim 3, wherein the C5 hydrocarbon resin
is further derived from at least one aromatic monomer.
5. The adhesive according to Claim 3, wherein the C5 hydrocarbon resin
20 is further derived from α -methyl styrene.
6. The adhesive according to Claim 1, wherein the C5 hydrocarbon resin
is derived from aliphatic monomers.
7. The adhesive according to Claim 1, wherein the polyethylene includes
25 a low density polyethylene.
8. The adhesive according to Claim 1, wherein the copolymer is an
30 ethylene-acrylic acid copolymer.

9. The adhesive according to Claim 1, wherein the polyethylene is present in an amount from about 80 to about 95 percent by weight, the copolymer is present in an amount from about 3 to about 5 percent by weight, the resin is present in an amount from about 0.2 to about 15 percent by weight, and an hindered phenolic antioxidant is present in an amount from 0 to about 1.0 percent by weight.

10. The adhesive according to Claim 1, wherein the polyethylene is present in an amount from about 90 to about 95 percent by weight, the copolymer is present in an amount from about 3 to about 5 percent by weight, the resin is present in an amount from about 1 to about 5 percent by weight, and an hindered phenolic antioxidant is present in an amount from 0.2 to about 0.8 percent by weight.

11. An adhesive, comprising:
low density polyethylene;
an ethylene-acrylic acid copolymer;
a C5 hydrocarbon resin derived from at least one monomer selected from the group consisting of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and dimers thereof; and
a hindered phenolic antioxidant.

12. The adhesive according to Claim 11, wherein the C5 hydrocarbon resin is further derived from α -methyl styrene.

13. A cable, comprising:
a metal conductor;
a polymeric jacket surrounding said metal conductor; and
an adhesive bonding said outer conductor and said polymer jacket, said adhesive comprising polyethylene; a copolymer derived from ethylene and at least one monomer selected from the group consisting of acrylic acid, methacrylic acid, methyl acrylate and ethyl acrylate; and a resin derived from at least one unsaturated C5 hydrocarbon monomer.

14. The cable according to Claim 13, wherein said adhesive further comprises a hindered phenolic antioxidant.

5 15. The cable according to Claim 13, wherein the resin in said adhesive is derived from at least one monomer selected from the group consisting of piperylene, 2-methyl-2-butene, isoprene, cyclopentene, cyclopentadiene, and dimers thereof.

10 16. The cable according to Claim 15, wherein the resin in said adhesive is further derived from at least one aromatic monomer.

17. The cable according to Claim 15, wherein the resin in said adhesive is further derived from α -methyl styrene.

15 18. The cable according to Claim 13, wherein the resin in said adhesive is derived from aliphatic monomers.

19. The cable according to Claim 13, wherein the polyethylene in said adhesive includes a low density polyethylene.

20 20. The cable according to Claim 13, wherein the copolymer in said adhesive is an ethylene-acrylic acid copolymer.

25 21. The cable according to Claim 13, wherein the polyethylene is present in an amount from about 80 to about 95 percent by weight, the copolymer is present in an amount from about 3 to about 5 percent by weight, the resin is present in an amount from about 0.2 to about 15 percent by weight, and an hindered phenolic antioxidant is present in an amount from 0 to about 1.0 percent by weight.

30 22. The cable according to Claim 13, wherein the polyethylene is present in an amount from about 90 to about 95 percent by weight, the copolymer is present in an

amount from about 3 to about 5 percent by weight, the resin is present in an amount from about 1 to about 5 percent by weight, and an hindered phenolic antioxidant is present in an amount from 0.2 to about 0.8 percent by weight.

5 23. The cable according to Claim 13, wherein the metal conductor is formed of copper or a copper alloy.

 24. The cable according to Claim 13, wherein the polymeric jacket is formed of polyethylene.

10

 25. The cable according to Claim 13, wherein the adhesive forms an adhesive bond between said outer conductor and said polymeric jacket having a 72 hour bond peel strength of at least about 5 lb_f/in.

15

 26. The cable according to Claim 13, further comprising an inner conductor and a dielectric layer surrounding said inner conductor, wherein said metal conductor is an outer conductor and surrounds said dielectric layer.

20

 27. A coaxial cable, comprising:

an inner conductor;

a dielectric layer surrounding said inner conductor;

an outer conductor formed of copper or a copper alloy surrounding said dielectric layer;

25 and

a polymeric jacket formed of polyethylene surrounding said outer conductor;

an adhesive bonding said outer conductor and said polymer jacket, said adhesive comprising about 80 to about 95 percent by weight polyethylene; about 3 to about 5 percent by weight ethylene-acrylic acid copolymer, about 0.2 to about 15 percent by weight of a resin derived from at least one unsaturated C5 hydrocarbon monomer, and from 0 to about 1.0 percent by weight of a hindered phenolic antioxidant.

30

28. The coaxial cable according to Claim 27, wherein the adhesive forms an adhesive bond between said outer conductor and said polymeric jacket having a 72 hour bond peel strength of at least about 5 lb_f/in.

ADD A1

For filing